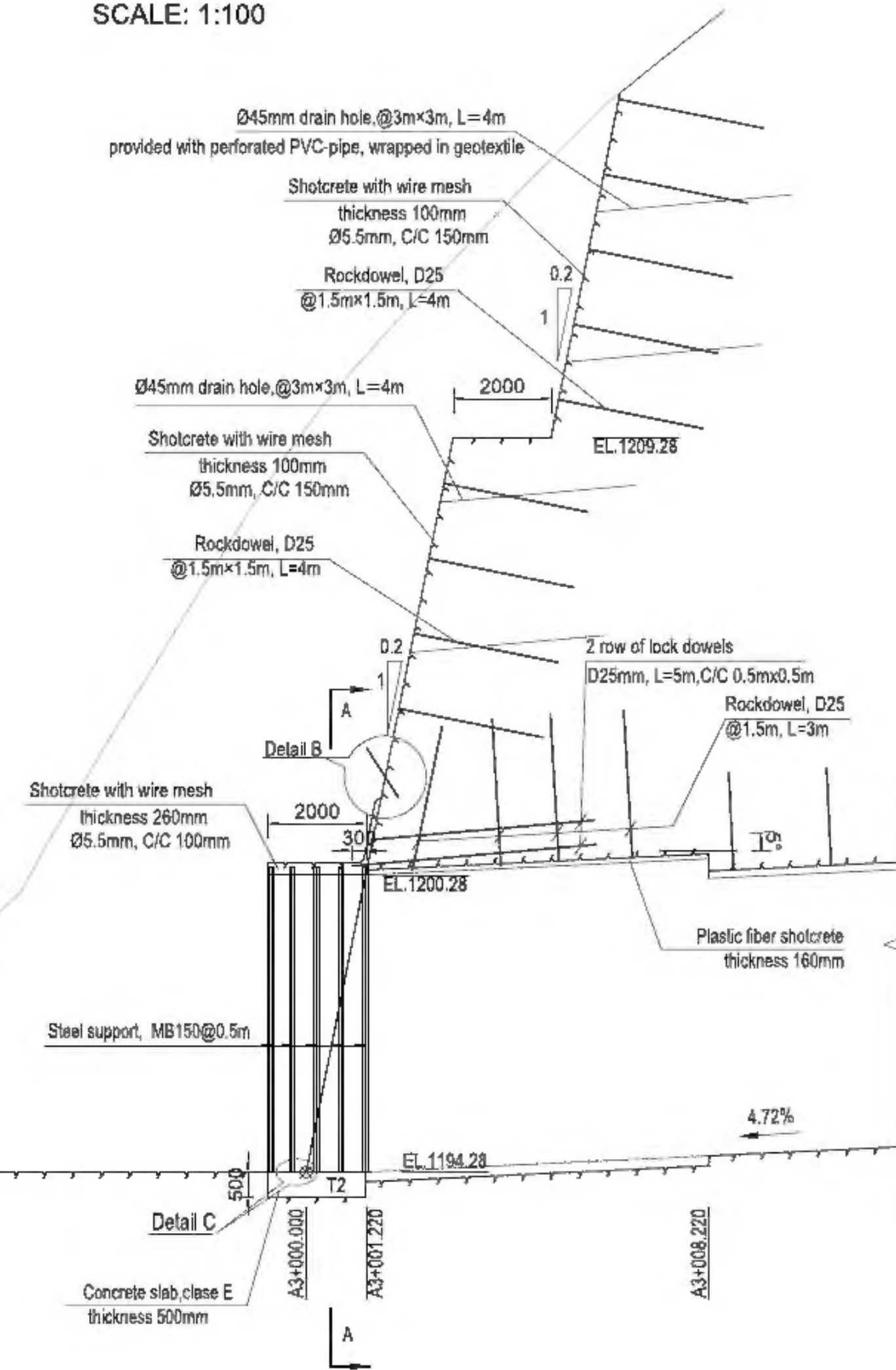
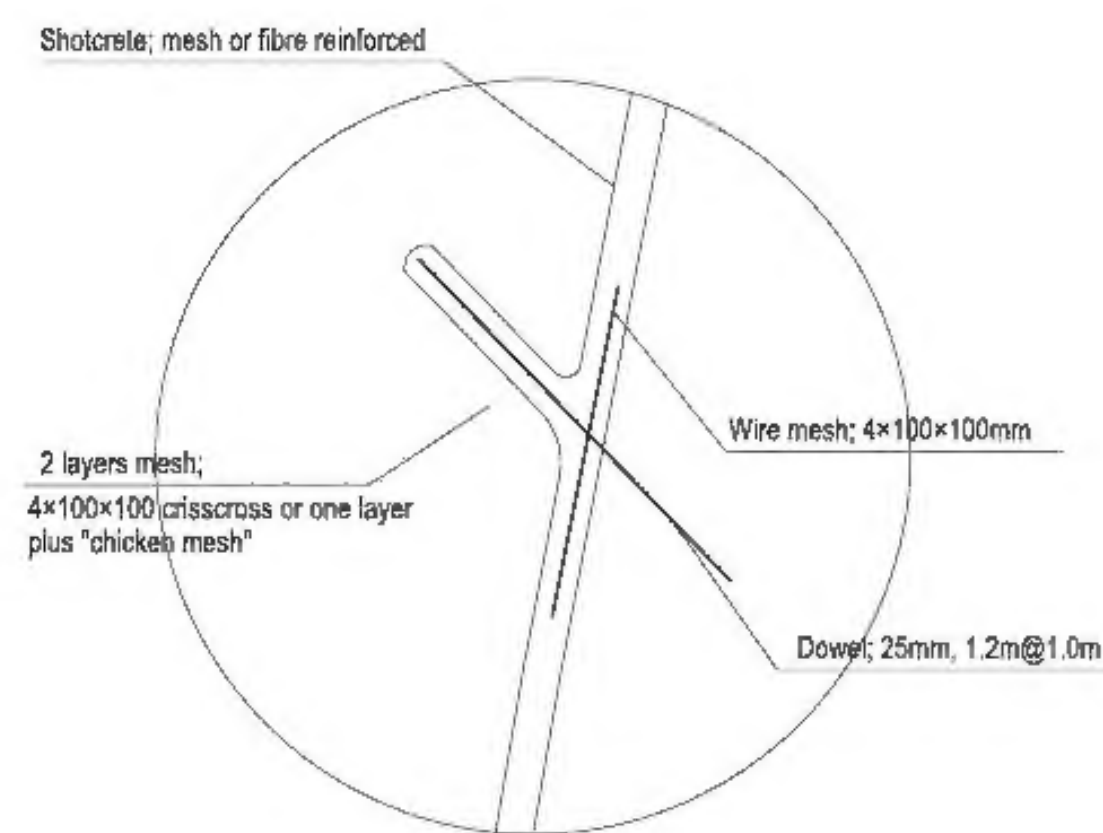


SCALE: 1:100



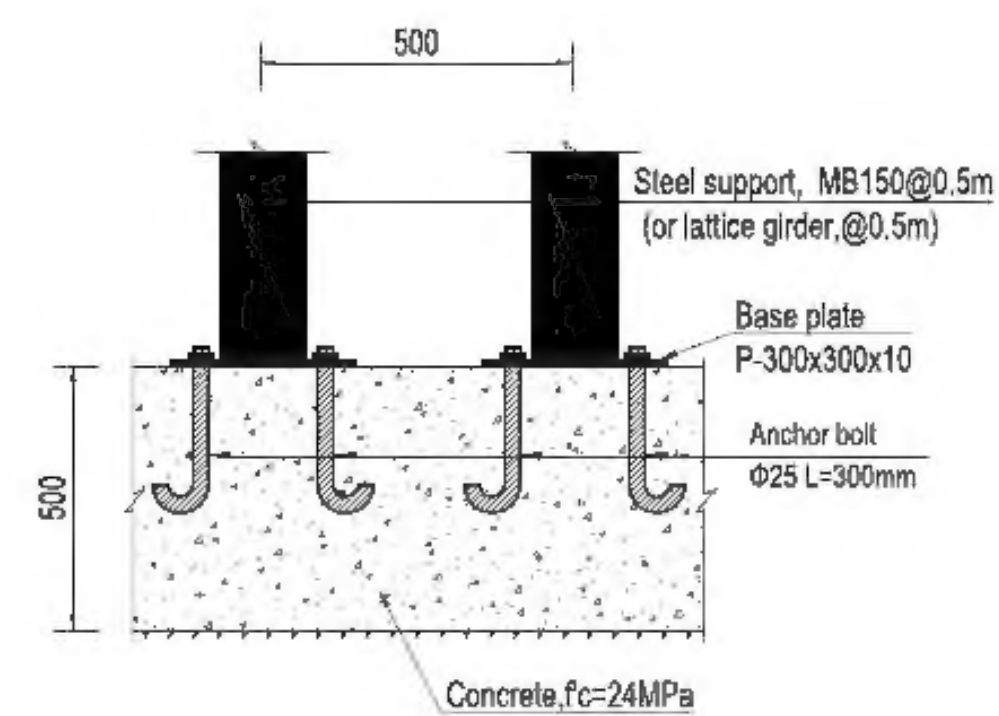
Detail B

SCALE: 1:20



DETAIL C

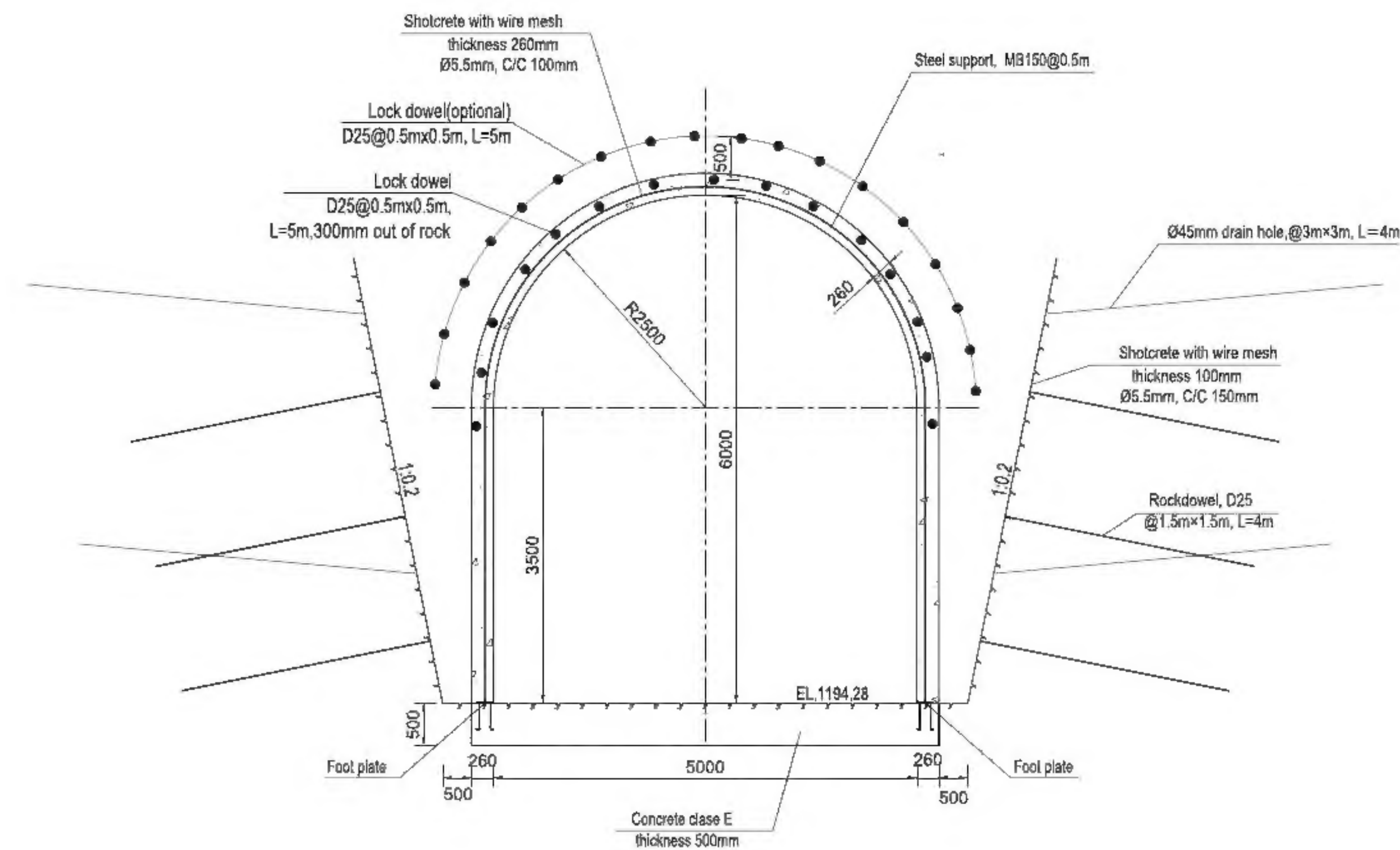
SCALE: 1:50



SCHEMATIC DIAGRAM OF OPEN TUNNEL

(SECTION A-A)

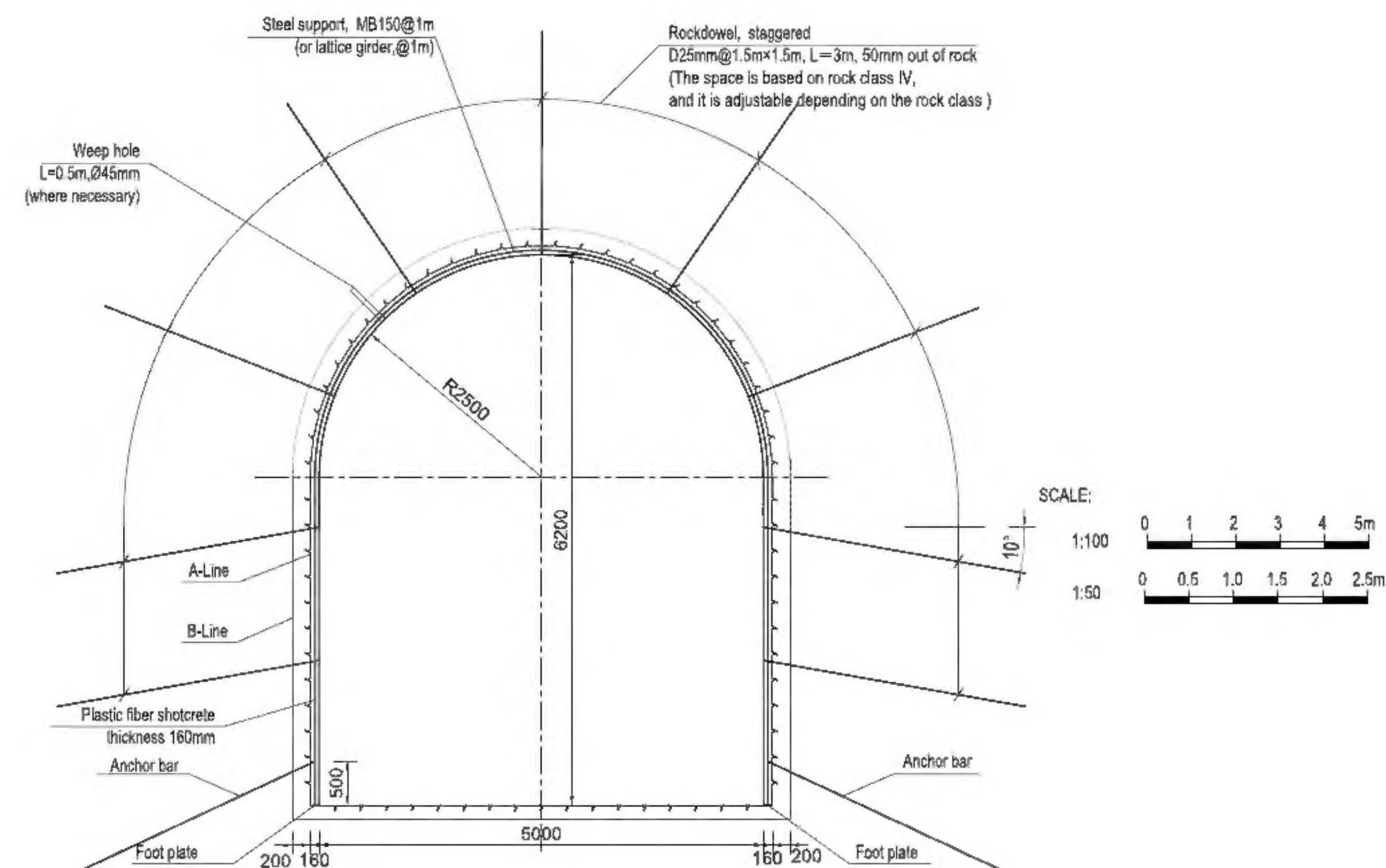
— SCALE 1:50



SUPPORT TYPE OF TUNNEL ENTRANCE SECTION

(A3+001.220-A3+008.220)

SCALE 1:50



NOTE

- 1.This set of drawings are the excavation and initial support of adit No.3.
- 2.All dimensions are in millimeters, and coordinates, chainages & elevations are in meters.
- 3.The thickness of concrete cover is 50mm.
- 4.Symbol description:
 - A-Line is the design excavation line.
 - B-Line is the overbreak line.
 - R denotes round bar, yield strength of the round bar is 280MPa.
 - D denotes deformed bar, yield strength of the deformed bar is 500MPa;
- 5.Strength specification of concrete & shotcrete:
 - (1) Concrete class E: Cylinder specified compressive strength 24MPa at 28 days.
 - (2) Concrete class C: Cylinder specified compressive strength 12MPa at 28 days.
 - (3) Shotcrete: Cylinder specified compressive strength 21MPa at 28 days.
- 6.Other notes see sheet 1.

REFERENCE DRAWINGS

UTI-C-150-CVL-DG-43002	Surrounding Rock Stability Calculation of Adit No.3
UTI-C-005-CVL-DG-40001-01-05	Detailed Design Drawing of Excavation and Support for Underground Cavern
UTI-C-645-CVL-DG-70005	Layout Drawing of Monitoring for Adit No.3

SYMBOL AND LEGEND

FOR APPROVAL

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E	21 JAN, 2022	FOR APPROVAL	DONG Z.Z.	Lei Y.G.	Han J.B.
D	10 DEC, 2021	FOR APPROVAL	DONG Z.Z.	Lei Y.G.	Han J.B.
C	10 SEP, 2021	FOR APPROVAL	DONG Z.Z.	Lei Y.G.	Han J.B.
B	25 JUL, 2021	FOR APPROVAL	DONG Z.Z.	Lei Y.G.	Han J.B.
A	25 MAY, 2021	FOR APPROVAL	DONG Z.Z.	Lei Y.G.	Han J.B.
REV NO.	DATE	DESCRIPTION	DRAWN	CHECKD.	APPROD.

PROJECT TITLE	
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Upper Trishuli-1 HEP (216MW)

OWNER **NO QUEDS**

OWNER'S ENGINEER



CONTRACTOR	
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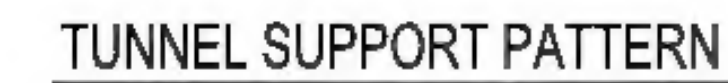


DRAWING TITLE

EXCAVATION AND INITIAL SUPPORT DRAWINGS
OF ADIT NO.3 (2/4)

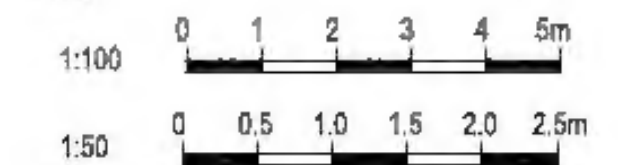
INDEX	DRAWING NUMBER	SHEET NO.	REV. NO.
A	UT1-C-160-CVL-DG-43004	2 OF 4	E

SCALE 1:100



NOTE

- SCALE:



REFERENCE DRAWINGS

UTI-C-150-CVL-00-43002	Surrounding Rock Stability Calculation of Adh NO.3
UTI-C-000-CVL-00-40001-01-05	Detailed Design Drawing of Excavation and Support for Underground Cavern
UTI-C-645-CVL-00-70005	Layout Drawing of Monitoring for Adh No.3

SYMBOL AND LEGEND

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E	21.JAN.2022	FOR APPROVAL	DONG Z.Z.	Lei Y.G.	Han J.B.
F	10.FEB.2022	FOR APPROVAL	DONG Z.Z.	Lei Y.G.	Han J.B.
G	10.FEB.2022	FOR APPROVAL	DONG Z.Z.	Lei Y.G.	Han J.B.
B	29.JUL.2021	FOR APPROVAL	DONG Z.Z.	Lei Y.G.	Han J.B.
A	25.MAY.2021	FOR APPROVAL	DONG Z.Z.	Lei Y.G.	Han J.B.
9 REV NO.	DATE	DESCRIPTION	DRAWN	CHKD.	APPD.

PROJECT TITLE

Upper Trishuli-1 HEP (216MW)

OWNER



OWNER'S ENGINEER



CONTRACTOR

DOOSAN Doosan Heavy Industries & Construction

DRAWING TITLE

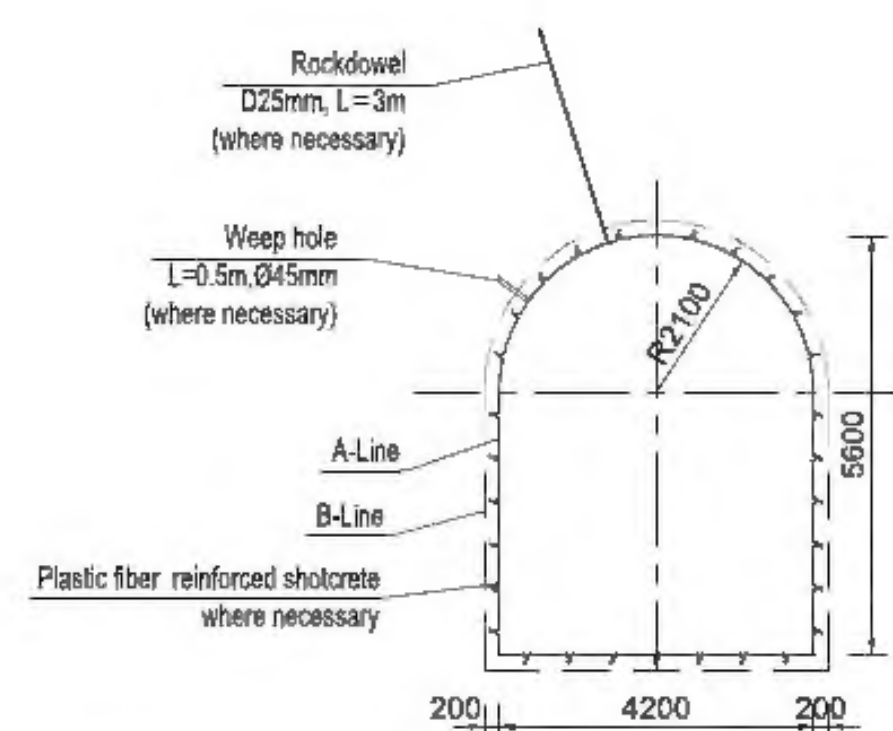
EXCAVATION AND INITIAL SUPPORT DRAWINGS
OF ADIT NO.3 (3/4)

INDEX	DRAWING NUMBER	SHEET NO.	REV. NO.
A	UT1-C-150-CVL-DG-43004	3 OF 4	E

A1 (594 x 841 MM)	1
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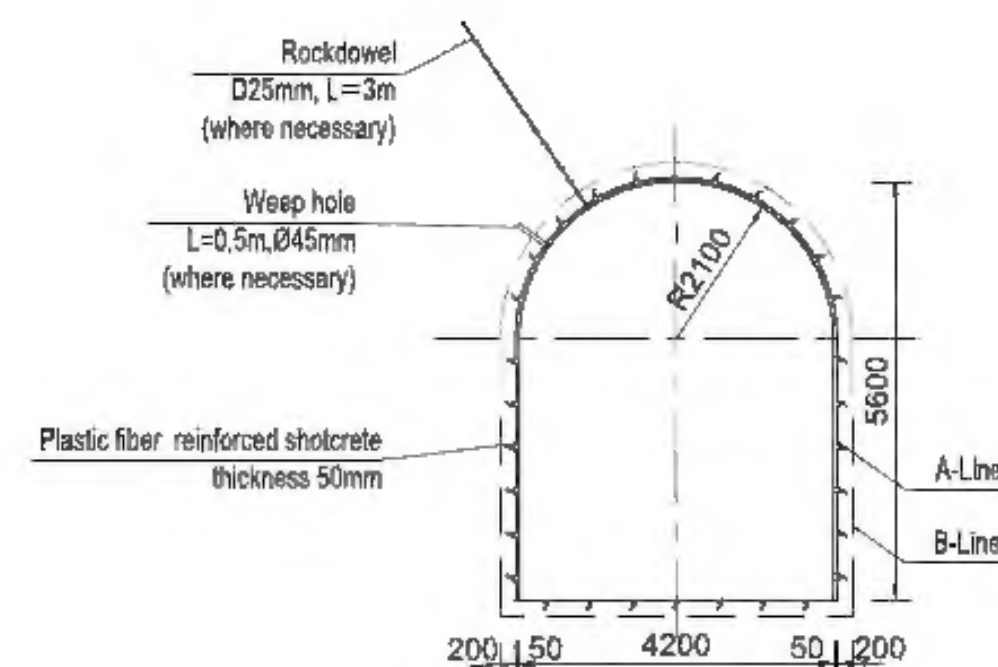
SUPPORT TYPE OF ROCK CLASS I

SCALE 1:100



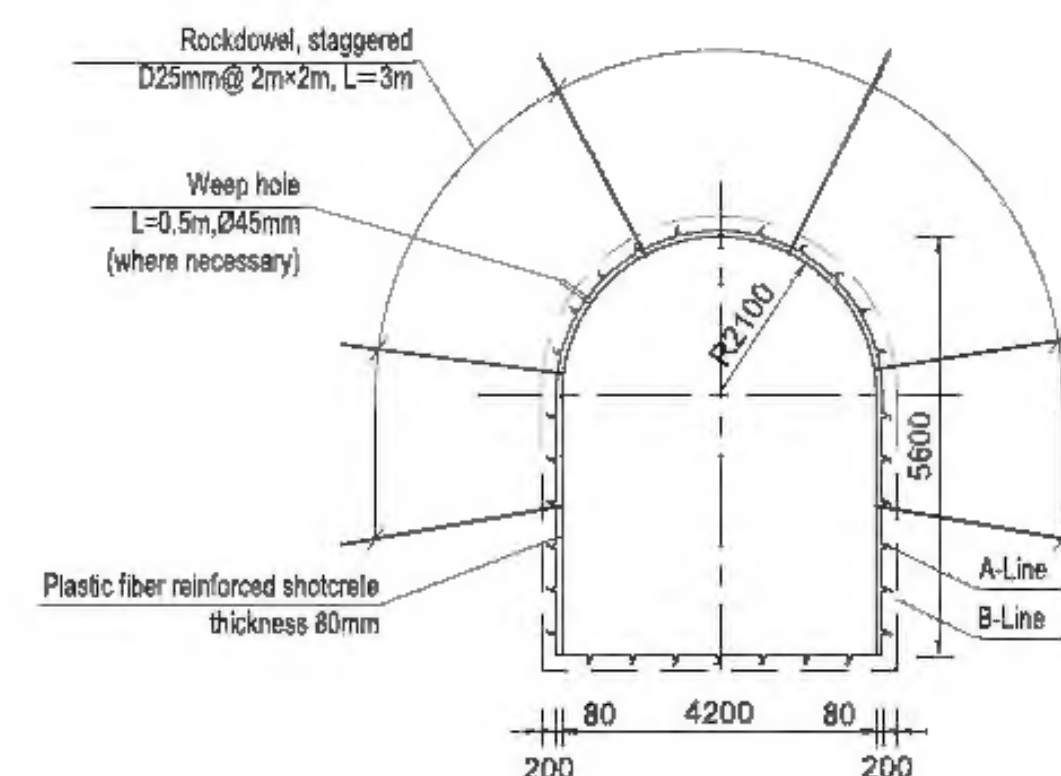
SUPPORT TYPE OF ROCK CLASS II

SCALE 1:100



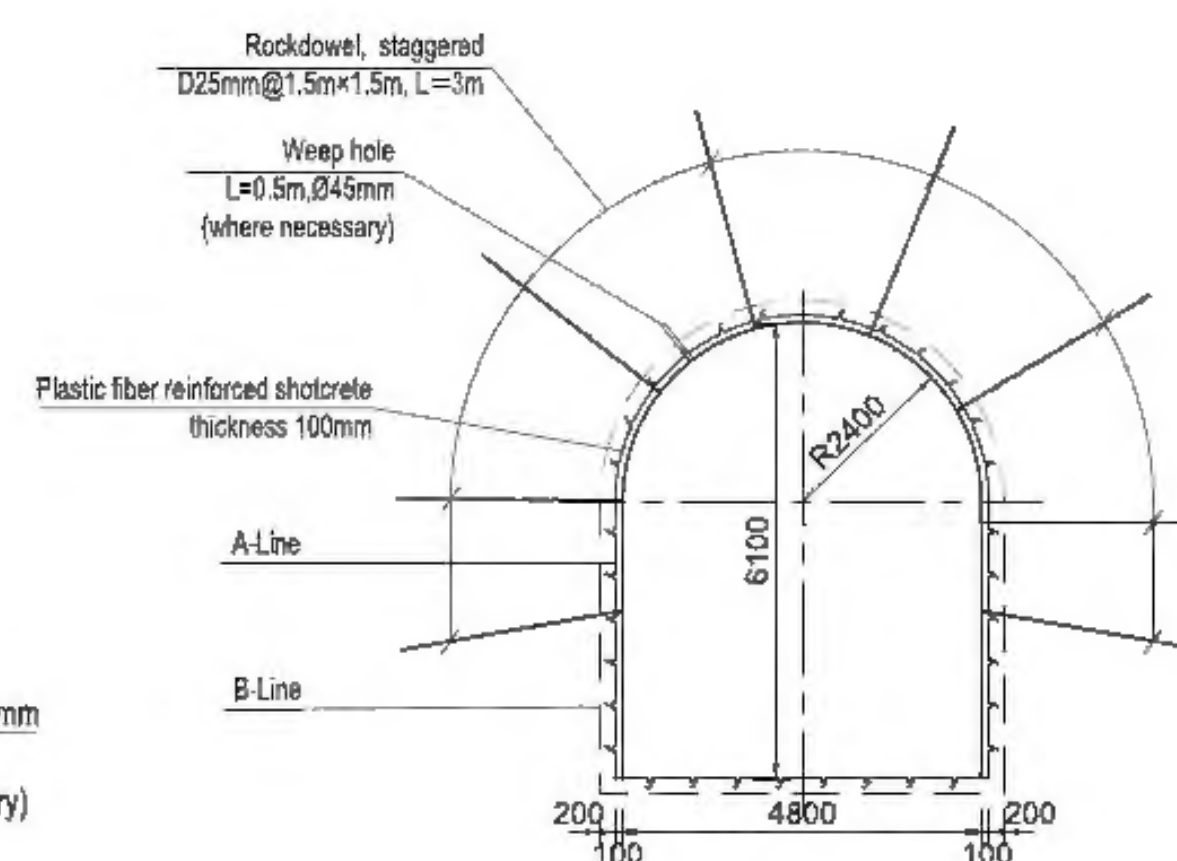
SUPPORT TYPE OF ROCK CLASS III

SCALE 1:100



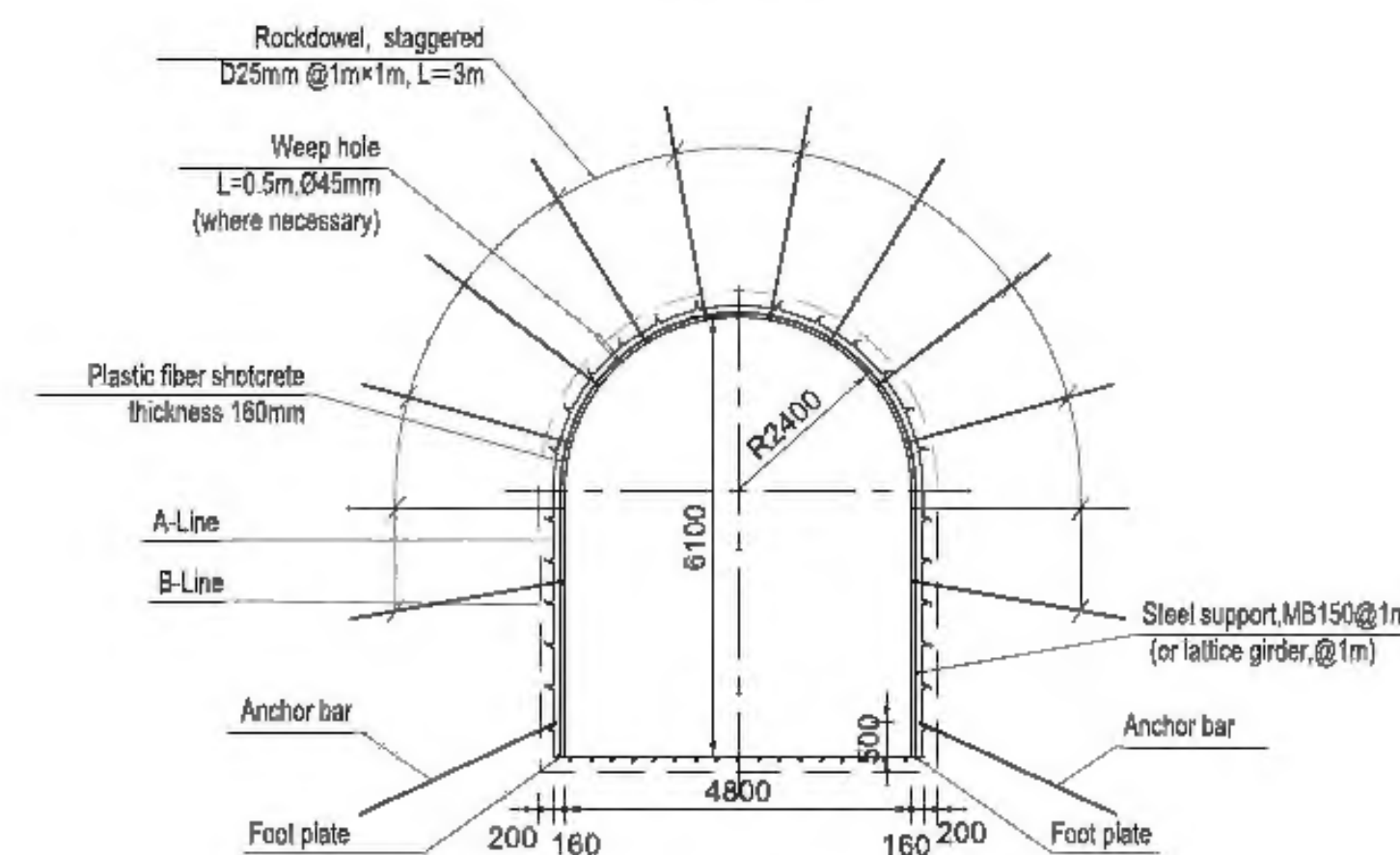
SUPPORT TYPE OF ROCK CLASS IV

SCALE 1:100



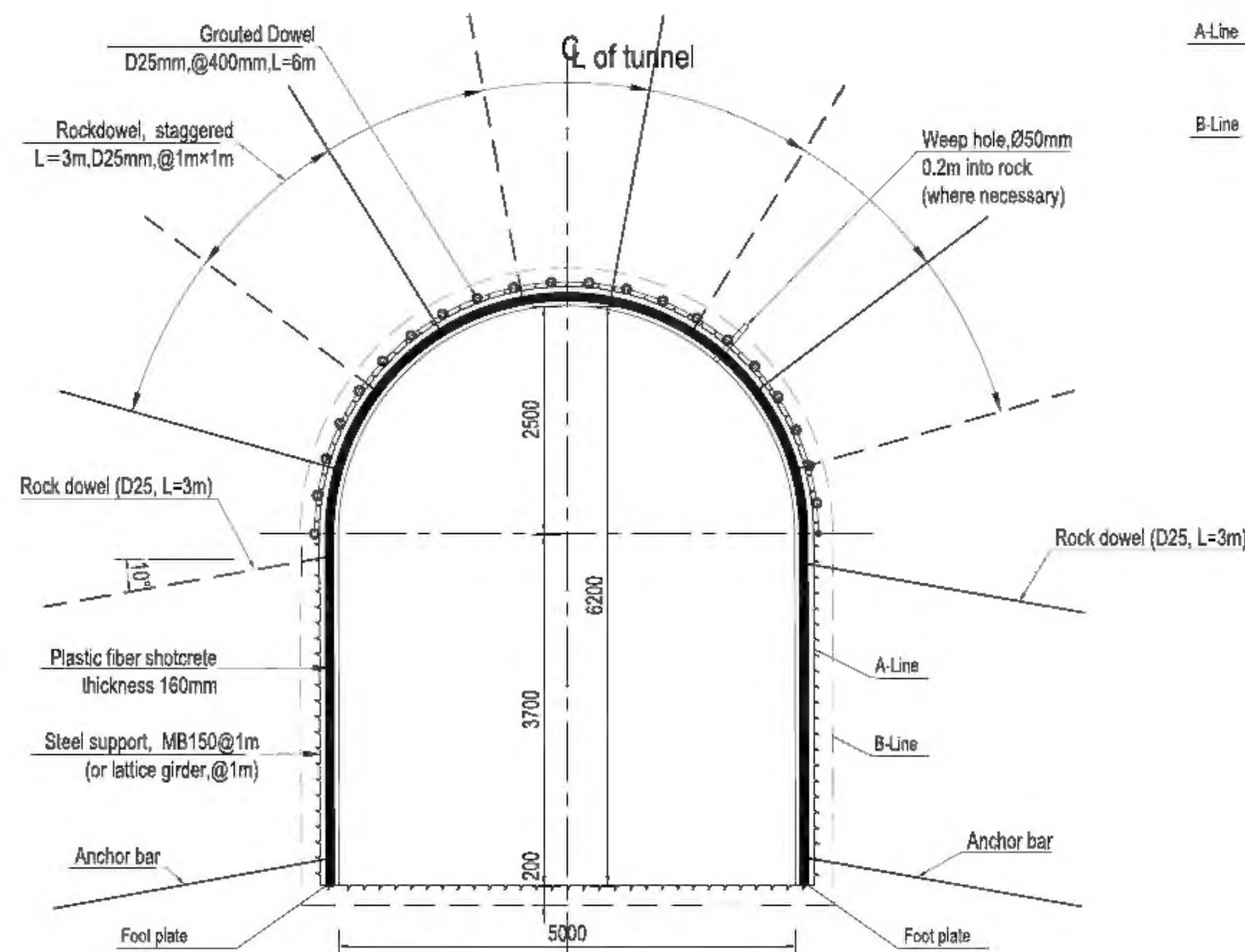
SUPPORT TYPE OF ROCK CLASS V

SCALE 1:100



ACROSS SECTION OF FOREPOLING

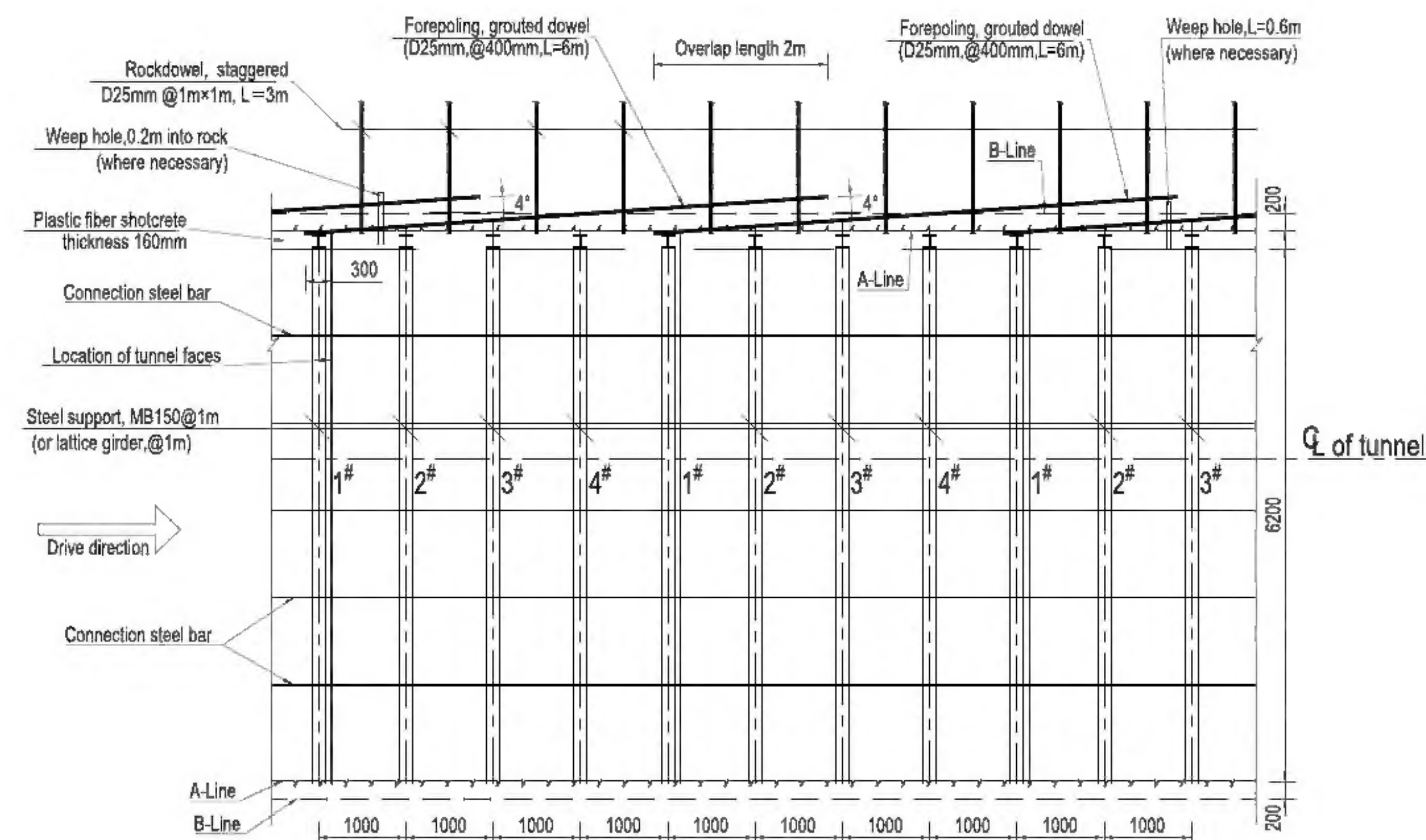
SCALE 1:100



LONGITUDINAL PROFILE OF FOREPOLING

Applied to 7m section of portal and class V

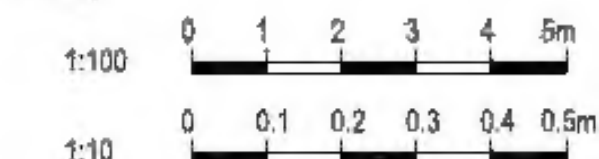
SCALE 1:50



NOTE

1. This set of drawings are the excavation and initial support of adit No.3.
2. All dimensions are in millimeters, and coordinates, chainages & elevations are in meters.
3. The canopy forepoling is mainly used in the tunnel section with poor surrounding rock geology, which should be used together with dowel and steel support (or lattice girder), and the spacing of dowel should be consistent with that of steel support.
4. The steel support (or lattice girder) to rock class IV is subjected to the exposed geological condition.
5. The excavation profile may need to be adjusted to a "saw-tooth profile" and size of ribs/girders may also be adjusted.
6. Other notes see sheet 1 & sheet 2.

SCALE:



REFERENCE DRAWINGS

UTI-C-150-CVL-DG-43002	Surrounding Rock Stability Calculations of Adit No.3
UTI-C-000-CVL-DG-40001-01-05	Detailed Design Drawing of Excavation and Support for Underground Cavern
UTI-C-645-CVL-DG-70005	Layout Drawing of Monitoring for Adit No.3

SYMBOL AND LEGEND

FOR APPROVAL

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A	25.MAY.2021	FOR APPROVAL	DONG Z.Z.	Lei Y.G.	Han J.B.

PROJECT TITLE
Upper Trishuli-1 HEP (216MW)

OWNER
NUEDC
NATIONAL UNIVERSITY OF ENGINEERING AND TECHNOLOGY

OWNER'S ENGINEER
TRACTEBEL
ENGIN

CONTRACTOR
DOOSAN Doosan Heavy Industries & Construction

DRAWING TITLE
EXCAVATION AND INITIAL SUPPORT DRAWINGS
OF ADIT NO.3 (4/4)

INDEX	DRAWING NUMBER	SHEET NO.	REV. NO.
A	UT1-C-150-CVL-DG-43004	4 OF 4	E

A1 (594 x 841 MM)